



GE Energy and Environmental Research Corporation

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January 6, 2002

Dr. Barry Wallerstein
Executive Officer
South Coast Air Quality Management District
21865 E. Copley Drive
Diamond Bar, CA 91765

Subject: Comments on Health Effects, AQMD Appendix I, 12/19/01 draft

Dear Dr. Wallerstein,

Thank you for providing the Health Effects Appendix for review by the Advisory Council. I found the report to be generally well written and I only have a few comments.

References

This document is primarily a summary of work conducted by many investigators. While a few are specifically referenced, most are referred to by statements such as: "Several studies have attempted to assess...." or "A number of studies have evaluated ..." I'd like to see much more extensive referencing.

PM 2.5

With the exception of PM 2.5, the health effects for all of the pollutants discussed in the Health Effects Appendix have been well known for some time and are discussed in many publications. The health effects of fine particulate, and in particular PM 2.5, are controversial. When the EPA proposed limits on PM 2.5 there was a lot of discussion about whether the epidemiological studies were valid. The problem was that while the epidemiological studies available at the time showed that mortality rates increased as PM 2.5 levels increased, this was not borne out by laboratory studies. This issue received a great deal of attention and was one of the key reasons why the ambient air quality standard for PM 2.5 was placed on hold. In the Health Effects Appendix, this is not brought out clearly. The third paragraph on page I-10, which begins: "The biological mechanisms by which particulate matter can produce health effects are being

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investigated in laboratory studies." provides some brief comments but does not provide any insight into the controversy. Also, the second paragraph on page I-12 begins: "In summary, the scientific literature indicates that an increased risk of mortality and morbidity is associated with particulate matter at ambient levels. The evidence for particulate matter effects is mostly derived from population studies with supportive evidence from clinical and animal studies." I don't think that this is adequately supported.

I'd like to see a more detailed analysis of this including:

- A summary of the history of health effects research in this area including the controversy over EPA's PM 2.5 standard and the plan for extensive studies prior to finalization of the standard.
- Are the studies discussed in the Health Effects Appendix the old studies which generated the controversy or are they new data?

Air Toxics

SCAQMD's landmark study of air toxics in the basin focused attention on this broad category of pollutants and in particular diesel particulate. I'd like to see the health effects of air toxics addressed to some degree in the Health Effects Appendix.

Final Comments

Again, thanks for the opportunity to review the Health Effects Appendix.

Very Truly Yours,



Blair A. Folsom, Ph.D.
Senior Vice President, GE EER
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SCAQMD
EXECUTIVE OFFICE

Barry Wallerstein, Executive Director
South Coast Air Quality Management District
21865 E. Copley Drive
Diamond Bar, CA 91765-4182

Jan. 21 2002

Re: Health Effects Portions of the AQMP

Dear Barry:

Clean Air Now, represented by its President, Virginia Field, has asked me to respond to your Executive Office Memorandum of Dec 19, 2001 on the subject above.

I find no factual errors in this draft. Several areas however, would be strengthened by additions.

The subject of the effects of the high concentration of air pollutants on pregnancy outcomes is one. The finding of the Asian and European studies are impressive to me, particularly the Czech studies carried out by the London School of Public Health, the most current one published in 1999. The recent report from one of the U.C.L.A. research groups on the incidence of congenital heart defects in affected populations is also of interest. In the Czech study the effects of pollution were most prominent when exposure occurred during the first trimester, which was also seen in the U.C.L.A. study. As is apparent, there is a positive correlation between premature birth weight and the incidence of congenital defects.

The recent addition to the U.S.C. (John Peters) Studies in which lung growth retardation effects in children appear to be halted or reversed by a family move from the high-pollution area to a low-pollution area is of interest.

References are on the attached sheet. They are undoubtedly well known to your staff.

Sincerely,


Daniel M. Hays

References:

Ritz B, Yu F, Fruin S et al, Amer J Epidemiol 2002; 155: 17-25

Roback M, Leon DA, Occup Environ Med 1999; 56: 539-543

Avol EL, Gauderman WJ, Tan SM et al, Am J Respir Crit Care Med
Vol 164, pp 2067-2072, 2001



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SCAQMD
EXECUTIVE OFFICE

JAMES F. STAHL

Chief Engineer and General Manager

February 1, 2002

File No: 31-380.10B

Dr. Barry Wallerstein
South Coast Air Quality
Management District
21865 E. Copley Drive
Diamond Bar, CA 91765

Dear Barry:

Health Effects Portion of AQMP

This is in response to your transmittal dated December 19, 2001 asking for comment on Appendix I of the upcoming Air Quality Management Plan, a review by the Advisory Council required by Section 40471 (b) of the Health and Safety Code in conjunction with the preparation of a new AQMP.

One intent of the legislation might have been to demonstrate how the findings in the report were to be allied with specific AQMP measures, somehow mitigating those findings. The report in essence says sufficient evidence exists to conclude that particulate air pollution is bad but does not provide even the most preliminary staff thinking along the lines of possible remedial actions.

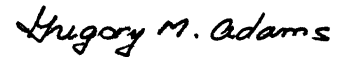
Also, prior to this report being released, on November 29, 2001, the California Air Resources Board and the California Office of Environmental Health Hazard Assessment released a draft report "Review of the California Ambient Air Quality Standards for Particulate Matter and Sulfates," a 300+ page comprehensive review of the subject which recommended lowering certain standards. The SCAQMD document only briefly discussed the ARB/OEHHA report. We believe it would be of value to tabulate within the AQMP those control measures that are envisioned to bring the District into compliance. Compliance with the current national standards and the current state standards should be shown first and then the proposed national standards and finally, the proposed OEHHHA standards, so that a predictive regulatory trend can be seen for the Advisory Council to have input on.

It might also be helpful to present current PM10 and PM2.5 "hot zones" within the various subregions of the SCAB. A map showing suspected emission sources of PM10

and PM2.5 and a showing in whose regulatory authority the identified sources lay, would be illustrative. Such information might help the Council focus its recommendations to the staff and Board on improving local particulate matter air quality.

Yours very truly,

James F. Stahl

A handwritten signature in black ink that reads "Gregory M. Adams". The signature is written in a cursive style with a large initial 'G'.

Gregory M. Adams
Assistant Departmental Engineer
Office Engineering Department

GMA:tk

Cc: Elaine Chang
Jean Ospital

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February 8, 2002

SCAQMD
EXECUTIVE OFFICE

FILE NO. 01 8282-0000

Dr. Barry Wallerstein
Executive Officer
South Coast Air Quality Management District
21865 E. Copley Drive
Diamond Bar, California 91765

Dear Dr. Wallerstein.

We have reviewed the Draft Air Quality Management Plan Appendix I, Health Effects, dated December 19, 2001 ("Draft Health Effects Report"), and provide the following comments on behalf of the Regulatory Flexibility Group.

As currently written, the Draft Health Effects Report fails to satisfy the needs of the District and the public. The Report is conclusory in nature, and comprised of generalized and unsupported statements regarding potential health effects of air pollution. The report declares that air pollution is bad, and both short and long term exposure to air pollution can result in serious health effects. These declaratory statements are not adequate. Detailed and specific information regarding the scientific study of the health effects of air pollution must be provided, and statements in the report concerning the health impacts of air pollution must be supported with citations to valid scientific studies. The report should also attempt to reconcile the findings of the studies that have been completed, rather than a simple recitation of the findings of each study without further analysis.

While the Draft Health Effects Report includes a brief discussion of new developments in the study of particulate matter, detailed information is not provided. New information on this subject is available. For example, on November 29, 2001, the California Air Resources Board and the California Office of Environmental Health Hazard Assessment released a draft report "Review of the California Ambient Air Quality Standards for Particulate Matter and Sulfates," containing a review of the health impacts of particulate matter. The Draft Health Effects Report mentions the review, but provides only summary information. *See* Draft Health Effects Report at pp. I-6 to I-7. A detailed discussion of the review and its impact on proposed AQMP control measures would be beneficial, and should be included in the final version of the report.

Finally, the Draft Health Effects Report also fails to relate what is known about the health effects of air pollution based on the scientific literature, to potential health effects in the SCAB based on existing ambient levels. It would be very helpful to put the scientific

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literature into the context of the SCAB. Without this context, the report is too abstract to be helpful in formulating public policy.

Given that the Draft Health Effects Report may serve as the basis for the introduction of new and expensive regulatory measures aimed at reducing pollution in the SCAB, it is critical that it be a detailed and complete analysis. We urge the District to incorporate the suggestions contained in this letter as it prepares the final document.

Truly yours,

A handwritten signature in black ink, appearing to read "Mike Carroll", with a stylized flourish at the end.

Michael J. Carroll
of LATHAM & WATKINS

cc: Robert Wyman
Regulatory Flexibility Group